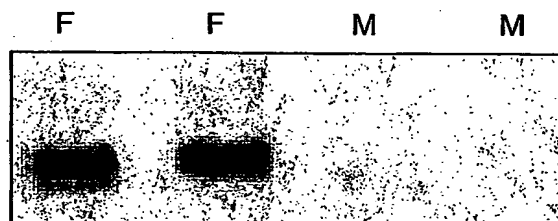
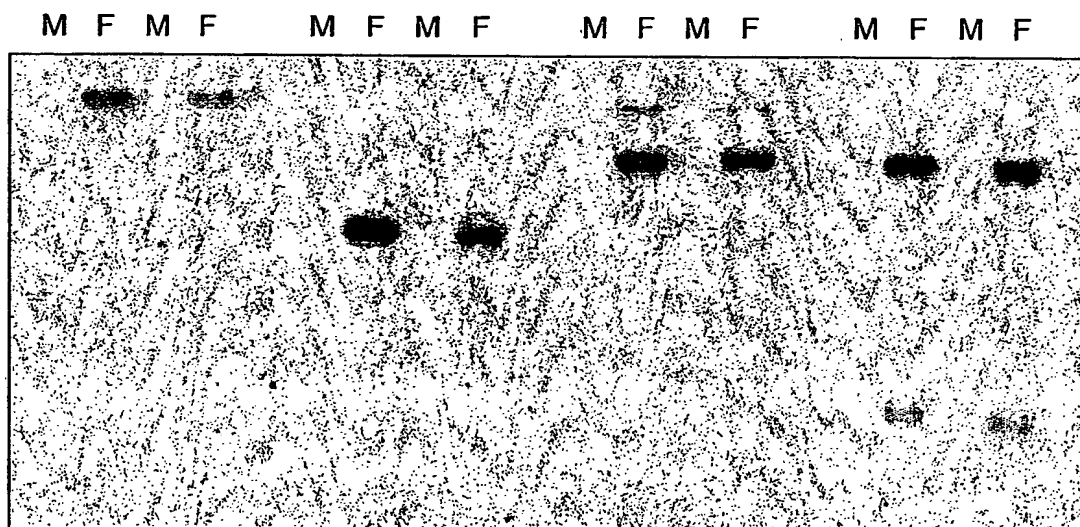


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Day 4.5 whole embryo

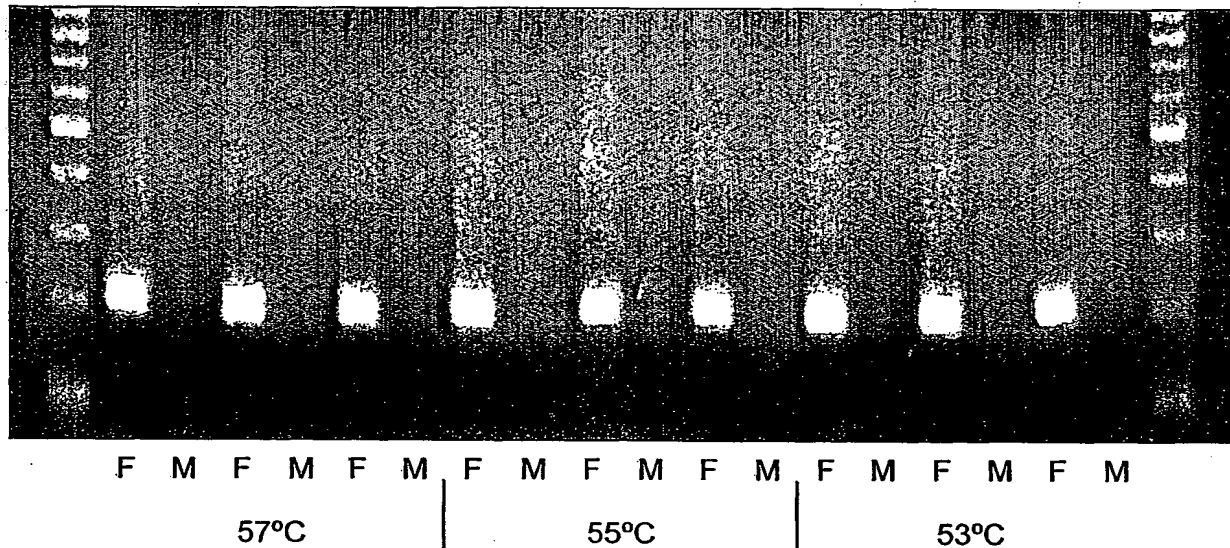
FIG. 1



Southern analysis

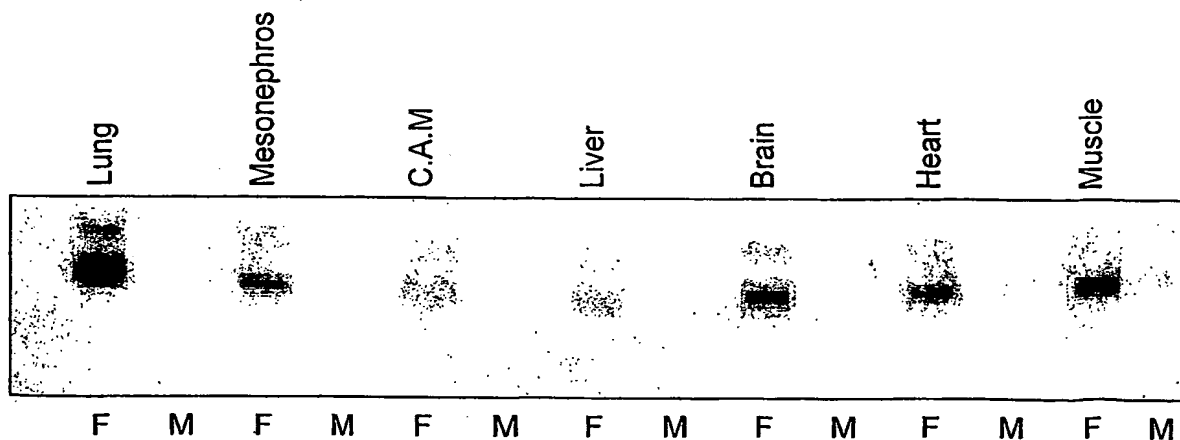
FIG. 2

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W-specific PCR

FIG. 3

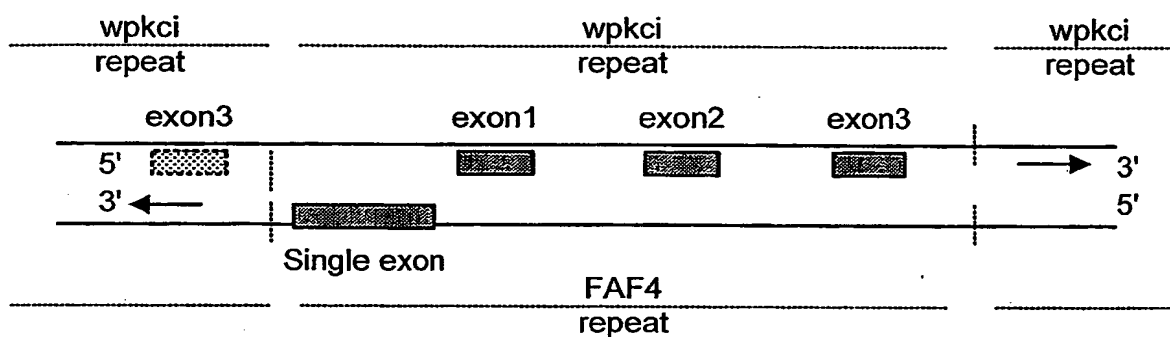


Northern analysis of FAF mRNA expression in the tissue of developing chicken embryos at day 11.5: lung, mesonephros, chorioallantoic membrane (CAM), liver, brain, heart and muscle isolated from male (M) and female (F) embryos

FIG. 4

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Position of the FAF4 796 bp sequence in relation to the w-pkci gene



Forward primer (A) = AGAATAAACGCCCCCTCGATT

Reverse primer (B) = CAGGTCTCTTTCTCGGTCG

Female-specific PCR primers

FIG. 5(a)

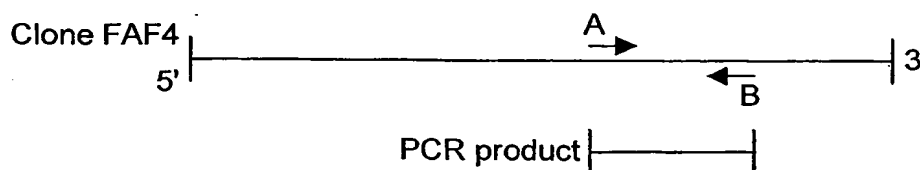
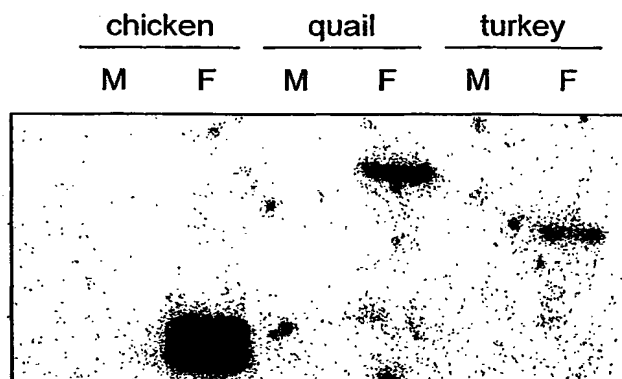
Relative position of the PCR 204 bp product with
respect to the FAF4 796 bp sequence clone

FIG. 5(b)

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Species blot

FIG. 6

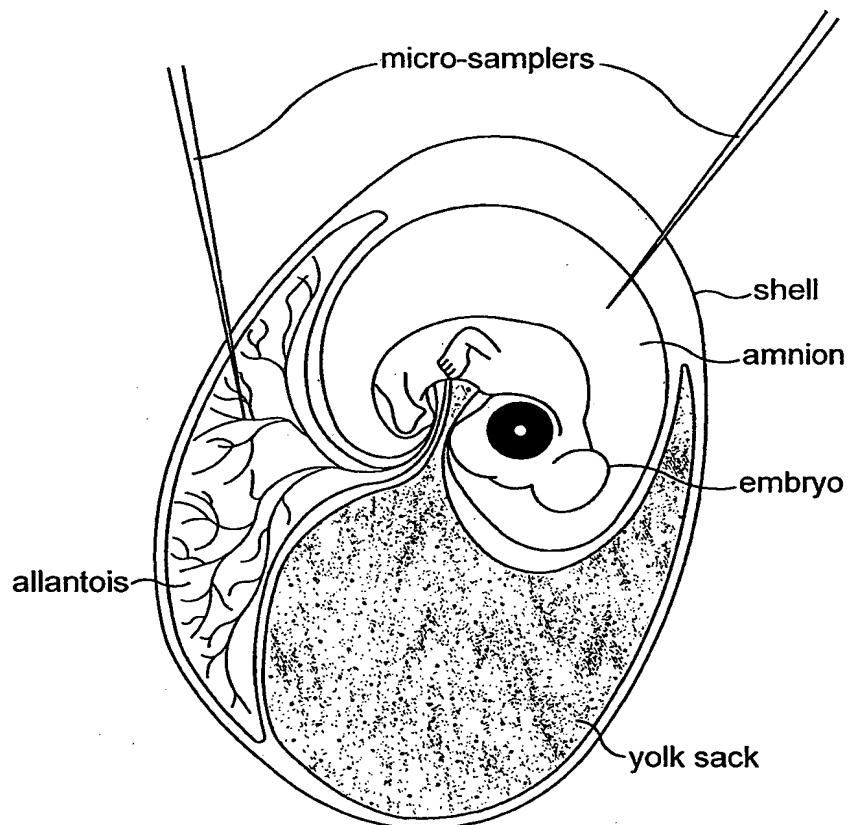


FIG. 7

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FAF1

1 AGTGCCGTTA CTATGAGCAA CCCAAGGAGA ACCAGACAGT ATATATATAT
51 GTGTATGACT CTGCAAAACC TTTGTAGCGC GCATTTTCCC TTGCTGTGTT
101 TTCCTTCCGC CTGTGATCGA CCGAGAAAGA GAACCTGCCC CTCTACCCCT
151 GCTTCCAACC AGAATCATGA AACACTGTCA CACTGCGGTG GTAACCATCT
201 CTGCATTCCCT GTAACAAATC CTTGCTTTTC TTTCTGTCTT TTTACTATTG
251 CTTTCGTCAT CCCACCTCCC ATCCCCCGGC CTAGCTAACC AAAACTTTCT
301 ACAATAAACC GGTGGGC

FIG. 8

FAF2

1 GGCGCTGGGG GCTTTTGGT GCCGATCCCT CCCGTCAAAT GGCCGTCAAA
51 TGTTGACGGG GCAGGCCAGG AGTTGCCAT CTTTGCATGA AGGGACAGGC
101 AACTCGGGGA GAGTGCAAGG ATGTTGCTAG CATGCGCAGG GAGAAAATTC
151 GACAGGCCAA AGCCCAGCAC GACCTTAATA TGGCCGCCAT TGTTTGAGAT
201 GATTAAAACT ATGTTTTTAC GAACATATTA ATAAGAGCAA GAGGAGGGCC
251 AAGGAGAATC TCCCTTCTTT ATTCAACGCG GTGGGGAACA TCACCATCGA
301 GGAGGAGGGA AAGGCTGAAG TTCCCAACGC CTTCTTCACT TCTGGCTTTA
351 GCAGTGAGAC CTGCTATCCC CAGGGTACTC AGCCCCCTGA GCTGGAAGAC
401 GGGGCCGGGG AGCAGAATAA ACGCCCCTCG ATTCCCAGTG CCTTCTTTAC
451 TTCTGTCTGT TTCTGACTGT TGCACCTGTG CTGGACGTGC CGTTACTATG
501 AGTAACCCAA GGAGAACCGG ACAGTATATA TATGTATGGA CCCTGCAAAA
551 ACTTTGCGCG CGCTTTTCCC TTGTTGTGTT TTCCTTCCGC CTGTGATCGA
601 CCGAGAAAGA GAACCCGCCC CCCCCCGCT TCCAACCGGA ATCATGAAAC
651 ATTGTCACAC TGCGGTGGTA ACCATCTCTG CATTCTGTG ACAAATCCTT
701 GCTTTTCTTT TCTGTCTTTT CACTATTGCT TTCGTCATCC CACCTCCCAT
751 CCCCAGGCCT AGCTAACCAA AACGTTTAC AATAAACCGG TTGGGC

FIG. 9

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FAF3

```
1  CGGTCAAATG GCCGTCAAAT GTTGCGGGG CAGGCCAGGA GTTGCCATC
51  TTTGGATGAA GGACGGGCAA CTCGGGGAGA GTGCCAGGAT GTTGCTAGCA
101 TGCGCAGGGA GAAAATTCGA CAAGCCAAAG CCCAGCAAGA CCTTAATCTG
151 GCCGCCATTG TTCGAGATGA TTAAACAAT GTTTTACGA ACGTATTAGT
201 AGCAAGAGGA GGGCCAAGGA GAATCTCCCT TCTTTATTCG ACGCGGTGGG
251 GAACATCACC ACCGAGGAGG AGGAAAAGGC TGAAGTTCTC AACGCCTTCT
301 TCACTTCTGT CTTTAGCAGT GAGACCAGCT ATTCTCAGGG TACTCAGCCC
351 CCTGAGCTGG AAGACGGGGC CGGGGAGCAG AATAAACGCC CCTCAATTCC
401 CAGTGCCTTC TTTACTTCTG TCTGTTCTGA CTGTTGCACC GGTGCTGGAC
451 GTGCCGTTAC TATGAGCAAC CCAAGGAGAA CCAGACAGTA TAGATATATA
501 TATATGTATG GACTCTGCAA AACTTTTGT GCGCGCTTTT CCCTTGCTGT
551 GTTTTCCTTC CGCCTGTGAT CGACCGAGAA AGAGAACCTG CCCCCCACC
601 CCTGCTTCCA ACCAGAATCG TGAAACATTG TCACACTGCG GTGGTAACCA
651 TCTCTGCATT CCTGTAACAA ATCCTTGCTT TTCTTTTCTG TCTTTTCACT
701 ATTGCTTTCG TCATCCCGCC TCCCATCCCC AGGCCTAGCT AACCAAACT
751 TTCTACAATA AACCGGTTGG GC
```

FIG. 10

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FAF4

1 GGCGCTGGGG GCTTTTTTGGT GCCGATCCCT CCCGTCAAAT GGCCGTCAAA
51 TGTTGACGGG GCAGGCCAGG AGTTTGCCAT CTTTGATGA AGGGACAGGC
101 AACTCGGGGA GAGTGCAAGG ATGTTGCTAG CATGCGCAGG GAGAAAATTC
151 GACAGGCCAA AGCCCAGCAC GACCTTAATA TGGCCGCCAT TGTTTGAGAT
201 GATTAAAACT ATGTTTTTAC GAACATATTA ATAAGAGCAA GAGGAGGGCC
251 AAGGAGAATC TCCCTTCTTT ATTCAACGCG GTGGGGAACA TCACCATCGA
301 GGAGGAGGGA AAGGCTGAAG TTCCCAACGC CTTCTTCACT TCTGGCTTTA
351 GCAGTGAGAC CTGCTATCCC CAGGGTACTC AGCCCCCTGA GCTGGAAGAC
401 GGGGCCGGGG AGCAGAATAA ACGCCCCCTCG ATTCCCAGTG CCTTCTTTAC
451 TTCTGTCTGT TTCTGACTGT TGCACCTGTG CTGGACGTGC CGTTACTATG
501 AGTAACCCAA GGAGAACCGG ACAGTATATA TATGTATGGA CTCTGCAAAA
551 ACTTTGCGCG CGCTTTTCCC TTGTTGTGTT TTCCTTCCGC CTGTGATCGA
601 CCGAGAAAGA GAACCTGCCC CCCCCCGCT TCCAACCGGA ATCATGAAAC
651 ATTGTCACAC TGCGGTGGTA ACCATCTCTG CATTCTGTG ACAAATCCTT
701 GCTTTTCTTT TCTGTCTTTT CACTATTGCT TTCGTCATCC CACCTCCCAT
751 CCCAGGCCT AGCTAACCAA AACGTTTAC AATAAACCGG TTGGGC

FIG. 11

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FAF5

```
1  CGCAACGGGC GCTCGTTCCA GAGGGCCTGC GAGCGCGCTA GGGTGGGGGA
51  GGGGTGGGAC GGGAGGGCAA GGAAGAATC GCGCGACGCG CAGCAAAGCC
101 GCGGCTACCT CCTCGTCCAC AACGGCTCCT CCTCGCGGAT AACGTTGGCG
151 GAGAACTCCT GGC GGCGGCGAC TTTTCCCAAG AGAGCGGCGC CACCGCGCCA
201 GGCGGCCGGC GACCTAACGA TCCCGCCGGC CATGACGGCG CCCGCTCGCT
251 ACAACACTCC CTCAGCCCCA AACCTCCCCA GCACGGCTCA GCATGGCTCA
301 GCACGGCTCG GCTCGCCTCG GCTCGCCTCG GCCCGGTCCC GCCCTCGGCG
351 GCGCTCATTG GGCCGACAGA GCGCCGCGGC CGTTTCCGCG CCTCGGTTGG
401 CTGTCTCGCC TGCCCTTTAA GCTTGTCCCC GCCCTGTAGG CGGCTCCGCT
451 CCCGTCGGCC CGGTGCTTAT CGGGGCTCAG GGAATTAGGC GCTGGGGGCT
501 TTTTGGTGCC GATCCCTCCC GTCAAATGGC CGTCAAATGT TGACGGGGCA
551 GGCCAGGAGT TTGCCATCTT TGCATGAAGG GACAGGCAAC TCGGGGAGAG
601 TGCAAGGATG TTGCTAGCAT GCGCAGGGAG AAAATTCGAC AGGCCAAAGC
651 CCAGCACGAC CTTAATATGG CCGCCATTGT TTGAGATGAT TAAACTATG
701 TTTTTACGAA CATATTAATA AGAGCAAGAG GAGGGCCAAG GAGAATCTCC
751 CTTCTTTATT CAACGCGGTG GGAACATCA CCATCGAGGA GGAGGGAAAG
801 GCTGAAGTTC CCAACGCCTT CTTCACTTCT GGCTTTAGCA GTGAGACCTG
851 CTATCCCAG GGTACTCAGC CCCCTGAGCT GGAAGACGGG GCCGGGGAGC
901 AGAATAAACG CCCCTCGATT CCCAGTGCCT TCTTTACTTC TGTCTGTTTC
951 TGA CTGTTGC ACCTGTGCTG GACGTGCCGT TACTATGAGT AACCCAAGGA
1001 GAACCGGACA GTATATATAT GTATGGACTC TGCAAAACT TTGCGCGCGC
1051 TTTTCCCTTG TTGTGTTTTT CTTCCGCCTG TGATCGACCG AGAAAGAGAA
1101 CCTGCCCCC CCCGCTTCC AACCGGAATC ATGAAACATT GTCACACTGC
1151 GGTGGTAACC ATCTCTGCAT TCCTGTAACA AATCCTTGCT TTTCTTTTCT
1201 GTCTTTTCAC TATTGCTTTC GTCATCCAC CTCCCATCCC CAGGCCTAGC
1251 TAACCAAAC GTTTTACAAT AAACCGGTTG GGC
```

FIG. 12

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TURKEY FAF REGION

1 TGCCGTTACT ATGAGCAACC CAAGGAGAGC CAGACAGTGT ATATATGTAT
 51 GGA CTCTGCA AAAACTTTGT GCGCGCTATT CCCTTGTTGT GTTTTCCTTC
 101 CGCCTGTGAT CGACCGAGAA AGAGAACCTG CACCCCCCAG CCCCCTGCC
 151 AACCAGACTC ATGAAACATT GTGACACTGC GGTGGTAACA ATCTCTGCCT
 201 TCCTGTAACA AATCCTCGCT TTTCTTTTCT GTCTTTTAC TATTGCTTTC
 251 TTCGTCCCAC CTCCCATCCC CAGGCCTAGC TAACC

FIG. 13

QUAIL FAF REGION

1 ACTAGTGATT GCCGTTACTA TGAGCAACCC AAACAGTGGA CAGTGTATAT
 51 ATAAGGGCTG CAAAAATAAG AGCATATGAT TTCCCTTGTA TTTTCCTTCT
 101 GCCTGTGATC GGCCAAGAAA GAGGGAGAGA ATTGACAGCC TGCACTGCCT
 151 CTGCTGACCA GACTCATGGA AACTGTGCAT ACTGCAGTGA TAACTATCTC
 201 TGCATTCCCTA TAACAAACCC TTGCTTTTAT TTTCTTTCTT TTTACTATCA
 251 TTTTCTTCAT CCCACCTCCT GTCCCCAGGC CTAGCTAACC AATC

FIG. 14

FAF1

5'3' Frame 1

ORF1

Met S N P R R T R Q Y I Y M C M T L Q N L C S A H F P L L C F P S A C
 D R P R K R T C P S T P A S N Q N H E T L S H C G G N H L C I P V T N
 P C F S F C L F T I A F V I P P P I P R P S Stop

5'3' Frame 2

ORF2

Met K H C H T A V V T I S A F L Stop

Putative ORFs for isolated chicken FAF clones

FIG. 15 (a)

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FAF2

5'3' Frame 1

ORF1

Met L L A C A G R K F D R P K P S T T L I W P P L F E M I K T M F L R
T Y Stop

ORF2

Met Y G P C K N F A R A F P L L C F P S A C D R P R K R T R P P P A S
N R N H E T L S H C G G N H L C I P V T N P C F S F L S F H Y C F R H
P T S H P Q A Stop

5'3' Frame 2

ORF3

Met L T G Q A R S L P S L H E G T G N S G R V Q G C C Stop

ORF4

Met D P A K T L R A L F P C C V F L P P V I D R E R E P A P P P L P T
G I M K H C H T A V V T I S A F L Stop

5'3' Frame 3

ORF5

Met A V K C Stop

ORF6

Met K G Q A T R G E C K D V A S M R R E K I R Q A K A Q H D L N M A A
I V Stop

ORF7

Met S N P R R T G Q Y I Y V W T L Q K L C A R F S L V V F S F R L
Stop

FIG. 15 (b)

FAF3

5'3' Frame 1

ORF1

Met L A G Q A R S L P S L D E G R A T R G E C Q D V A S M R R E K I R
Q A K A Q Q D L N L A A I V R D D Stop

ORF2

Met D S A K T F V R A F P L L C F P S A C D R P R K R T C P P T P A S
N Q N R E T L S H C G G N H L C I P V T N P C F S F L S F H
Y C F R H P A S H P Q A Stop

5'3' Frame 2

ORF3

Met A V K C W R G R P G V C H L W M K D G Q L G E S A R M L L A C A G
R K F D K P K P S K T L I W P P L F E M I K T M F L R T Y Stop

5'3' Frame 3

ORF4

Met S N P R R T R Q Y R Y I Y M Y G L C K N F C A R F S L A V F S F R
L Stop

FIG. 15 (c)

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FAF4

5'3' Frame 1

ORF1

Met Y G L C K N F A R A F P L L C F P S A C D R P R K R T C P P P A S
N R N H E T L S H C G G N H L C I P V T N P C F S F L S F H Y C F R H
P T S H P Q A Stop

ORF2 - same as FAF2, ORF1.

5'3' Frame 2

ORF3

Met D S A K T L R A L F P C C V F L P P V I D R E R E P A P P P L P T
G I M K H C H T A V V T I S A F L Stop

ORF4 - same as FAF2, ORF3

ORF5 - same as FAF2, ORF5

ORF6 - same as FAF2, ORF6

ORF7 - same as FAF2, ORF7

FIG. 15 (d)

FAF5

5'3' Frame 1

ORF1

Met T A P A R Y N T P S A P N L P S T A Q H G S A R L G S P R L A S A
R S R P R R R S L G R Q S A A A V S A P R L A V S P A L Stop

ORF2 - same as FAF2, ORF5

ORF3 - same as FAF2, ORF6

ORF4 - same as FAF2, ORF7

5'3' Frame 2

ORF5

Met A Q H G S A R L G S P R P G P A L G G A H W A D R A P R P F P R L
G W L S R L P F K L V P A L Stop

ORF6 - same as FAF2, ORF1

ORF7 - same as FAF4, ORF1

ORF8 - same as FAF2, ORF3

ORF9 - same as FAF4, ORF2

FIG. 15 (e)

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